

AMENDMENTS TO THE CLAIMS

This listing of claims replaces all prior versions of claims in the application.

Listing of Claims:

Claims 1-5 (Canceled).

Claim 6 (Previously Presented) An electronic camera having a function for performing synthesis of two image pickup signals obtained by performing by a single image pickup device two shots of picture taking of different exposure amount of the same object to obtain an image having an increased wide dynamic range, said electronic camera comprising:

flash emission means, said flash emission means caused to emit at both of a timing in the second half of charge accumulating time of the image pickup device at a first shot of picture taking and a timing in the first half of charge accumulating time of the image pickup device at a second shot of picture taking;

a photometric device having a separate entity from the image pickup device; and

means for causing said flash emission means to emit at both of the two shots of picture taking and setting charge accumulating time of the image pickup device at the second shot of picture taking based on an emission amount ratio of the two emissions measured by said photometric device.

Claim 7 (Previously Presented) An electronic camera having a function for performing synthesis of two image pickup signals obtained by performing by a single image pickup device

two shots of picture taking of different exposure amount of the same object to obtain an image having an increased wide, dynamic range, said electronic camera comprising:

flash emission means, said flash emission means caused to emit at both of a timing in the second half of charge accumulating time of the image pickup device at a first shot of picture taking and a timing in the first half of charge accumulating time of the image pickup device at a second shot of picture taking,

wherein said image pickup device includes an electronic shutter function capable of desirably controlling an exposure amount by controlling charge accumulating time, said flash emission means caused to emit at both of the two shots of picture taking and, at a smaller emission of the two emissions of the flash emission means, timing for stopping the smaller emission being set as the same as the timing for terminating an electronic shutter operation of the image pickup device.

Claims 8-29 (Canceled).

Claim 30 (Currently Amended) ~~The electronic camera according to claim 27~~ An electronic camera comprising:

optical means for forming an optical image of object of picture taking;

image pickup means for generating image pickup signals by taking picture and effecting photoelectric conversion of an image of the object formed at the optical means;

flash emission means for illuminating the object;

exposure condition designating means for designating exposure conditions at said image

pickup means;

image pickup signal synthesizing means for synthesizing two image pickup signals from two separate shots of picture taking at said image pickup means by exposure conditions designated by the exposure condition designating means;

flash emission control means for controlling emission of said flash emission means in connection with the exposure conditions with respect to each shot at the time of said two shots of picture taking; and

control means for controlling operation of each of the foregoing means,

wherein said flash emission means comprises a single charge storage means for accumulating emission energy of the flash emission means such that the total of emission amounts at the two shots of picture taking of the flash emission means is set equal to or lower than the total emission energy of said single charge storage means.

Claim 31 (Currently Amended) ~~The electronic camera according to claim 27~~ An electronic camera comprising:

optical means for forming an optical image of object of picture taking;

image pickup means for generating image pickup signals by taking picture and effecting photoelectric conversion of an image of the object formed at the optical means;

flash emission means for illuminating the object;

exposure condition designating means for designating exposure conditions at said image

pickup means;

image pickup signal synthesizing means for synthesizing two image pickup signals from two separate shots of picture taking at said image pickup means by exposure conditions designated by the exposure condition designating means;

flash emission control means for controlling emission of said flash emission means in connection with the exposure conditions with respect to each shot at the time of said two shots of picture taking; and

control means for controlling operation of each of the foregoing means,

wherein said flash emission means comprises a plurality of charge storage means differing from each other in capacitance value for accumulating emission energy of the flash emission means such that a full emission of the flash emission means is caused at each of the two shots of picture taking by selectively using the plurality of charge storage means so as to make a difference in the total capacitance values to be respectively used.

Claim 32 (Currently Amended) ~~The electronic camera according to claim 27~~ An electronic camera comprising:

optical means for forming an optical image of object of picture taking;

image pickup means for generating image pickup signals by taking picture and effecting

photoelectric conversion of an image of the object formed at the optical means;

flash emission means for illuminating the object;

exposure condition designating means for designating exposure conditions at said image

pickup means;

image pickup signal synthesizing means for synthesizing two image pickup signals from two separate shots of picture taking at said image pickup means by exposure conditions designated by the exposure condition designating means;

flash emission control means for controlling emission of said flash emission means in connection with the exposure conditions with respect to each shot at the time of said two shots of picture taking; and

control means for controlling operation of each of the foregoing means,

wherein said flash emission means comprises a plurality of charge storage means for accumulating emission energy of the flash emission means such that one picture taking is performed by a smaller emission based on a full emission using one single or a plurality of charge storage means and the other picture taking is performed by a larger emission based on an emission under dimming control using the other single or plurality of charge storage means.

Claim 33 (Currently Amended) ~~The electronic camera according to claim 27~~ An electronic camera comprising:

optical means for forming an optical image of object of picture taking;

image pickup means for generating image pickup signals by taking picture and effecting photoelectric conversion of an image of the object formed at the optical means;

flash emission means for illuminating the object;

exposure condition designating means for designating exposure conditions at said image pickup means;

image pickup signal synthesizing means for synthesizing two image pickup signals from two separate shots of picture taking at said image pickup means by exposure conditions designated by the exposure condition designating means;

flash emission control means for controlling emission of said flash emission means in connection with the exposure conditions with respect to each shot at the time of said two shots of picture taking; and

control means for controlling operation of each of the foregoing means,

wherein said flash emission means comprises a plurality of charge storage means for accumulating emission energy of the flash emission means such that one picture taking is performed by a smaller emission based on an emission under dimming control using one single or plurality of charge storage means and the other picture taking is performed by a larger emission based on a full emission using the other single or plurality of charge storage means.

Claim 34 (Currently Amended) ~~The electronic camera according to claim 27~~ An electronic camera comprising:

optical means for forming an optical image of object of picture taking;

image pickup means for generating image pickup signals by taking picture and effecting photoelectric conversion of an image of the object formed at the optical means;

flash emission means for illuminating the object;

exposure condition designating means for designating exposure conditions at said image pickup means;

image pickup signal synthesizing means for synthesizing two image pickup signals from two separate shots of picture taking at said image pickup means by exposure conditions designated by the exposure condition designating means;

flash emission control means for controlling emission of said flash emission means in connection with the exposure conditions with respect to each shot at the time of said two shots of picture taking; and

control means for controlling operation of each of the foregoing means,

wherein said flash emission means includes at least one charge storage means for accumulating emission energy of the flash emission means such that the two shots of picture taking are performed as illuminated by a smaller emission and a larger emission each based on an emission under dimming control.

Claim 35 (Original) The electronic camera according to claim 32, wherein said dimming control is effected by control of emission time of said flash emission means.

Claim 36 (Original) The electronic camera according to claim 33, wherein said dimming control is effected by control of emission time of said flash emission means.

Claim 37 (Original) The electronic camera according to claim 34, wherein said dimming control is effected by control of emission time of said flash emission means.

Claim 38 (Original) The electronic camera according to claim 32 further comprising a photometry means, said dimming control being effected based on detection of a predetermined emission amount by direct photometry of said photometry means.

Claim 39 (Original) The electronic camera according to claim 33 further comprising a photometry means, said dimming control being effected based on detection of a predetermined emission amount by direct photometry of said photometry means.

Claim 40 (Original) The electronic camera according to claim 34 further comprising a photometry means, said dimming control being effected based on detection of a predetermined emission amount by direct photometry of said photometry means.

Claim 41 (Original) The electronic camera according to claim 32, wherein said dimming control is effected based on measurement and detection of a predetermined voltage at the charge

storage means.

Claim 42 (Original) The electronic camera according to claim 33, wherein said dimming control is effected based on measurement and detection of a predetermined voltage at the charge storage means.

Claim 43 (Original) The electronic camera according to claim 34, wherein said dimming control is effected based on measurement and detection of a predetermined voltage at the charge storage means.

Claim 44 (Original) The electronic camera according to claim 32, wherein, when dimming is to be effected of the flash emission means at the second shot of picture taking, an emission amount of light from the flash emission means at the first shot of picture taking is measured and an emission amount under dimming control of the flash emission means at the second shot is set based on the measured emission amount so as to correspond to a previously set emission amount ratio of the flash emission means between the two shots of picture taking.

Claim 45 (Original) The electronic camera according to claim 33, wherein, when dimming is to be effected of the flash emission means at the second shot of picture taking, an emission amount of light from the flash emission means at the first shot of picture taking is measured and an emission amount under dimming control of the flash emission means at the

second shot is set based on the measured emission amount so as to correspond to a previously set emission amount ratio of the flash emission means between the two shots of picture taking.

Claim 46 (Original) The electronic camera according to claim 34, wherein, when dimming is to be effected of the flash emission means at the second shot of picture taking, an emission amount of light from the flash emission means at the first shot of picture taking is measured and an emission amount under dimming control of the flash emission means at the second shot is set based on the measured emission amount so as to correspond to a previously set emission amount ratio of the flash emission means between the two shots of picture taking.

Claim 47 (Original) The electronic camera according to claim 44 further comprising a photometry means, the emission amount of the flash emission means at the first shot of picture taking being measured by direct photometry of said photometry means.

Claim 48 (Original) The electronic camera according to claim 45 further comprising a photometry means, the emission amount of the flash emission means at the first shot of picture taking being measured by direct photometry of said photometry means.

Claim 49 (Original) The electronic camera according to claim 46 further comprising a photometry means, the emission amount of the flash emission means at the first shot of picture

taking being measured by direct photometry of said photometry means.

Claim 50 (Original) The electronic camera according to claim 44, wherein the emission amount of the flash emission means at the first shot of picture taking is obtained by a voltage measurement at said charge storage means.

Claim 51 (Original) The electronic camera according to claim 45, wherein the emission amount of the flash emission means at the first shot of picture taking is obtained by a voltage measurement at said charge storage means.

Claim 52 (Original) An electronic camera according to claim 46, wherein the emission amount of the flash emission means at the first shot of picture taking is obtained by a voltage measurement at said charge storage means.

Claims 53-84 (Canceled).